UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,519	09/12/2000	Leland S. Bloebaum	4015-785	6474

24112 7590 08/13/2004

COATS & BENNETT, PLLC
P O BOX 5
RALEIGH, NC 27602

EXAMINER	
IQBAL, KHAWAR	

ART UNIT	PAPER NUMBER
2686	9

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/660,519	BLOEBAUM ET AL.	
	Examiner	Art Unit	
	Khawar Iqbal	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 6/4/04.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 and 29-31 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-27,29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al (6313787) and further in view of Garin et al (6671620).

3. Regarding claim 1 King et al teaches a method of facilitating location detection, comprising (figs. 1,2,12):

storing information relating to position detection assisting devices in a mobile terminal (col. 16, lines 1-25, col. 13, line 60-col. 14, line 29);

referencing said information to determine a subset of the position detection assisting devices which are available from which to determine location (col. 13, line 60-col. 14, line 29, col. 6, lines 20-48) and

requesting contemporary information about said subset from a mobile network (col. 16, lines 1-25, col.8, lines 40-58). King et al teaches ephemeris message having GPS ephemeris data for multiple of GPS satellites and clock correction data, is received and differential correction data is also received. GPS ephemeris data for satellites requiring update is detected. Update message with updated GPS ephemeris data is received. Location of handset is detected in response to GPS ephemeris data, clock and correction data and updated GPS ephemeris data. King et al does not specifically

teach after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices.

In an analogous art, Garin et al teaches after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices (col. 3, lines 59-65, col. 4, lines 5-35). In a satellite global positioning system, satellite acquisition and location assistance is based upon shared information between a GPS receiver and a remote server. Satellite position is predicted by satellite almanac data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of King et al by specifically adding features after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices in order to received mobile position more accurately as taught by Garin et al.

Regarding claim 15 King et al teaches a mobile terminal comprising (figs. 1,2,8,12):

a transceiver (fig.8); and

a control system operatively connected to said transceiver (fig.8, elements 503,523,527,534), wherein said control system stores information relating to a plurality of position detection assisting devices within a position detection system and solicits contemporary information from a mobile network via said transceiver relating to a subset of said position detection assisting devices (col. 16, lines 1-25, col. 13, line 60-col. 14, line 29). King et al teaches ephemeris message having GPS ephemeris data for

multiple of GPS satellites and clock correction data, is received and differential correction data is also received. GPS ephemeris data for satellites requiring update is detected. Update message with updated GPS ephemeris data is received. Location of handset is detected in response to GPS ephemeris data, clock and correction data and updated GPS ephemeris data. King et al does not specifically teach after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices.

In an analogous art, Garin et al teaches after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices (col. 3, lines 59-65, col. 4, lines 5-35). In a satellite global positioning system, satellite acquisition and location assistance is based upon shared information between a GPS receiver and a remote server. Satellite position is predicted by satellite almanac data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of King et al by specifically adding features after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices in order to received mobile position more accurately as taught by Garin et al.

Regarding claim 21 King et al teaches a communication system comprising (figs. 1,2,8,12):

a server comprising contemporary information relating to a position detection system (col. 2, lines 51-67, col. 16, lines 1-25);

a mobile network (fig.2); and

a mobile terminal communicatively connected to said server through said mobile network, said mobile terminal storing local information relating to the position detection system and soliciting subset of said contemporary information from said server based in part on said local information (col. 16, lines 1-25, col. 13, line 60-col. 14, line 29). King et al teaches ephemeris message having GPS ephemeris data for multiple of GPS satellites and clock correction data, is received and differential correction data is also received. GPS ephemeris data for satellites requiring update is detected. Update message with updated GPS ephemeris data is received. Location of handset is detected in response to GPS ephemeris data, clock and correction data and updated GPS ephemeris data. King et al does not specifically teach after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices.

In an analogous art, Garin et al teaches after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices (col. 3, lines 59-65, col. 4, lines 5-35). In a satellite global positioning system, satellite acquisition and location assistance is based upon shared information between a GPS receiver and a remote server. Satellite position is predicted by satellite almanac data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of King et al by specifically adding features after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the

position detection devices in order to received mobile position more accurately as taught by Garin et al.

Regarding claims 27, 32 King et al teaches a method of facilitating location detection, comprising (figs. 1,2,12):

storing information relating to position detection assisting devices in a mobile terminal (col. 16, lines 1-25, col. 13, line 60-col. 14, line 29).

referencing said information to determine a subset of the position detection assisting devices which are theoretically visible from which to determine location (col. 13, line 60-col. 14, line 29, col. 6, lines 20-48);

receiving signals from position detection assisting devices which are actually visible to the mobile terminal (col.16, lines 1-32); and

requesting contemporary information about the position detection assisting devices which are actually visible from a mobile network (col. 8, lines 40-58, col. 6, lines 18-33, col. 16, lines 1-32). King et al teaches ephemeris message having GPS ephemeris data for multiple of GPS satellites and clock correction data, is received and differential correction data is also received. GPS ephemeris data for satellites requiring update is detected. Update message with updated GPS ephemeris data is received. Location of handset is detected in response to GPS ephemeris data, clock and correction data and updated GPS ephemeris data. King et al does not specifically teach after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices.

In an analogous art, Garin et al teaches after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices (col. 3, lines 59-65, col. 4, lines 5-35). In a satellite global positioning system, satellite acquisition and location assistance is based upon shared information between a GPS receiver and a remote server. Satellite position is predicted by satellite almanac data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of King et al by specifically adding features after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices in order to received mobile position more accurately as taught by Garin et al.

Regarding claim 29 King et al teaches a method of facilitating location detection using a satellite based positioning system, comprising (figs. 1,2,12):

evaluating an almanac within a mobile terminal to determine which satellites are theoretically available based on a coarse location and time of the mobile terminal (col. 8, lines 40-58, col. 6, lines 18-33, col. 16, lines 1-32);

securing at the mobile terminal, from a mobile network accurate time information for satellites that are theoretically available (col.6, lines 20-46, col. 6, lines 18-33, col. 16, lines 1-32);

deriving, at the mobile terminal, Doppler and code phase information for the satellites that are theoretically available (col. 6, lines 18-33, col. 16, lines 1-32);

acquiring a signal from one or more of the satellites that are theoretically available (col. 6, lines 18-33, col. 16, lines 1-32); and

requesting ephemeris information only for those satellites previously acquired (col. 8, lines 40-58, col. 6, lines 18-33, col. 16, lines 1-32).

King et al teaches ephemeris message having GPS ephemeris data for multiple of GPS satellites and clock correction data, is received and differential correction data is also received. GPS ephemeris data for satellites requiring update is detected. Update message with updated GPS ephemeris data is received. Location of handset is detected in response to GPS ephemeris data, clock and correction data and updated GPS ephemeris data. King et al does not specifically teach after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices.

In an analogous art, Garin et al teaches after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the position detection devices (col. 3, lines 59-65, col. 4, lines 5-35). In a satellite global positioning system, satellite acquisition and location assistance is based upon shared information between a GPS receiver and a remote server. Satellite position is predicted by satellite almanac data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of King et al by specifically adding features after said determining by said mobile terminal, beginning acquisition of position location assistance signals from said subset of the

position detection devices in order to received mobile position more accurately as taught by Garin et al.

Regarding claim 2 King et al teaches receiving an inquiry as to the present location of the mobile terminal (col. 8, lines 38-58, col.13, line 60-col. 14, line 29).

Regarding claim 3 King et al teaches wherein receiving an inquiry as to the present location of the mobile terminal originates in the mobile terminal (col. 8, lines 38-58, col.13, line 60-col. 14, line 29).

Regarding claim 4 King et al teaches wherein receiving an inquiry as to the present location of the mobile terminal originates in a mobile network associated with the mobile terminal (col. 6, lines 20-47, col. 8, lines 38-58, col.13, line 60-col. 14, line 29).

Regarding claims 5,16,22,30 King et al teaches wherein receiving an inquiry as the present location of the mobile terminal originates in a server communicatively connected to a mobile network associated with the mobile terminal (col. 8, lines 38-58, col.13, line 60-col. 14, line 29, also see above).

Regarding claims 6,17,23 King et al teaches wherein requesting contemporary information about said subset from a mobile network comprises evaluating a time stamp to determine whether the mobile terminal already has contemporary information about one or more position detection assisting devices in said subset (col. 16, lines 1-41, col. 22, lines 20-51, col. 27, lines 40-57).

Regarding claims 7,18,24 and 31 King et al teaches wherein requesting contemporary information comprises requesting contemporary information about only

those in said subset about whom contemporary information is not available in the mobile terminal (col. 16, lines 1-41, col. 22, lines 20-51, col. 27, lines 40-57).

Regarding claims 8,19,25 King et al teaches wherein evaluating a time stamp comprises evaluating a time stamp to determine if said time stamp falls within a predetermined threshold (col. 16, lines 1-41, col. 22, lines 20-51, col. 27, lines 40-57).

Regarding claims 9,20,26 King et al teaches wherein evaluating a time stamp to determine if said time stamp falls within a predetermined threshold comprises evaluating if said time stamp is more than four hour old (col. 16, lines 1-41, col. 22, lines 20-51, col. 27, lines 40-57).

Regarding claim 10 King et al teaches wherein requesting contemporary information about said subset from a mobile network comprises requesting contemporary information from a server within the mobile network (col. 8, lines 38-58, col.13, line 60-col. 14, line 29).

Regarding claim 11 King et al teaches wherein requesting contemporary information about said subset from a mobile network comprises requesting contemporary information from a server communicatively connected to said mobile network (col. 8, lines 38-58, col.13, line 60-col. 14, line 29).

Regarding claim 12 King et al teaches receiving the contemporary information at the mobile terminal and locating said mobile terminal based on information received from said subset of position detection assisting devices (col. 6, lines18-65, col. 16, lines 1-41).

Regarding claim 13 King et al teaches reporting the location of the mobile terminal as determined by said locating step (col. 6, lines18-65, col. 16, lines 1-41).

Regarding claim 14 King et al teaches wherein referencing said information to determine a subset of the position detection assisting devices which are available comprises determining a subset comprising only the position detection assisting devices necessary and sufficient from which to determine location (col. 6, lines18-65, col. 16, lines 1-41).

Response to Arguments

4. Applicant's arguments with respect to claims 1-27,29-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAWAR IQBAL whose telephone number is 703-306-3015.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **BANKS-HAROLD, MARSHA**, can be reached at 703-305-4379.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2684 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Khawar Iqbal

7/27/04

LESTER G. KINCAID
PRIMARY EXAMINER